health conditions, and the demographic variables. We also report QOL weights for the self-reported health state and priority health conditions, by the demographic variables. Finally, ordinary least squares and CLAD regression equations were used to estimate adjusted QOL weights for these variables. CONCLUSION: By providing nationally representative QOL weights for self-reported health status and priority health conditions, by demographic variable, we have facilitated the use of large national surveys for conducting cost-utility analysis and increased their value to researchers and policy makers.

PIH12
IDENTIFYING MEANINGFUL IMPROVEMENTS IN VASOMOTOR SYMPTOMS AMONG MENOPAUSAL WOMEN USING DESVENLAFAXINE SUCCINATE Wyrich KW1, Yu H2, Bobula JD2
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OBJECTIVES: To identify treatment satisfaction thresholds for interpreting treatment-related changes in vasomotor symptoms, and determine the doses of desvenlafaxine succinate (DVS) that effectively provide relief of vasomotor symptoms considered important by menopausal women. METHODS: Efficacy and treatment satisfaction were assessed in 620 postmenopausal women with ≥7 moderate-to-severe vasomotor symptoms/day participating in a double-blind, placebo-controlled trial randomized to placebo or DVS 50, 100, 150, or 200 mg. Number and severity of hot flushes and number of nighttime awakenings were recorded in daily diaries for 12 weeks of treatment. Responses to the Menopausal Symptoms Treatment Satisfaction Questionnaire at week 12 were compared with efficacy results. The treatment satisfaction threshold was anchored by the difference in the average symptom change among women reporting “neutral” satisfaction compared with women reporting “satisfied,” without deference to treatment group. RESULTS: Greater percentages of participants in the DVS groups reported being “satisfied” or “extremely satisfied” with daytime and nighttime control of hot flushes compared with placebo (57–75% versus 52%; P = 0.009 and 63–80% versus 54%; P = 0.003). These efficacy results were greatest in the 100 mg DVS group. The treatment satisfaction threshold was 1.64 for daytime hot flushes, 0.20 for the hot flushes severity score, and 0.42 for nighttime awakenings. Statistically significant efficacy outcomes with DVS 100 mg compared with placebo exceeded all treatment satisfaction thresholds. CONCLUSION: Among menopausal women in this study, the treatment satisfaction thresholds in vasomotor symptoms reduction over placebo were 1.64 hot flushes per day and about one nighttime awakening every other night. Exceeding these vasomotor symptoms change thresholds indicated that the 100 mg dose of DVS had achieved important and meaningful improvements from the participants’ perspective. DVS is an effective option for treatment of vasomotor symptoms associated with menopause.

INFECTION—Clinical Outcomes Studies

PIN1
COSTEFFECTIVENESS OF ACUTE AND CHRONIC RHINOSINUSITIS AT THE MEXICAN INSTITUTE OF SOCIAL SECURITY (IMSS)
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OBJECTIVES: To determine the cost-effectiveness of treatments for patients with acute (RSA) and chronic rhinosinusitis (RSC) that are available at the Mexican Institute of Social Security (IMSS). METHODS: Cost-effectiveness analysis of RSA and RSC treatment from an institutional perspective. Effectiveness outcome was defined as the percentage of cure and this information was taken from the literature. Use of resources was obtained from an expert panel and unit costs were taken from Administrative and Financial departments from IMSS. Estimated costs are expressed in US dollars (USD). A decision tree with a Bayesian approach included the following therapeutic alternatives: ciprofloxacin, gatifloxacin, trimetoprim/sulfametoxazol (TMP/SMX), amoxicillin/clavulanic acid (AAC) and clindamycin. The decision tree was designed by IMSS experts according to clinical guidelines. Univariate and bivariate sensitivity analyses were carried out. RESULTS: Treatment for RSA with AAC showed a mean cost per cured patient of $79.8 USD. The remaining antibiotics had a higher cost per unit of success, and therefore the results showed that AAC was the best alternative considering this criterion. Therapy that showed a larger percentage of cured patients in RSC was clindamycin (cost per unit of success 66.6 USD); however, the therapeutic alternative with the lowest cost per successful unit was the one based on ciprofloxacin, which dominates gatifloxacin and AAC. CONCLUSION: Ciprofloxacin is a cost-effective alternative for both, RSA and RSC; however, AAC is also a good alternative in RSA when resources are constrained. Sensitivity analysis showed the strength of the base study results.
with baseline population characteristics may potentially confound these findings.

TREATMENT FAILURE, COMPLICATIONS AND COSTS OF LEVOFLOXACIN VS. AMOXICILLIN/CLAVULANATE ANTIBIOTIC THERAPY IN OUTPATIENT COMMUNITY ACQUIRED PNEUMONIA (CAP)

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OBJECTIVES: To examine treatment failure rates, disease-related medical complications and health care costs among CAP outpatients treated with levofloxacin (LEVO) or amoxicillin/clavulanate (AC). METHODS: Using adjudicated, commercial health insurance claims data (PharMetrics, Inc.), patients with an outpatient CAP diagnosis between July 2003 and December 2004, aged 18–64, with 6-months enrollment pre- and post-diagnosis, receiving LEVO or AC monotherapy within 3 days of diagnosis, were identified. Patients with recent hospitalization (10 days), prior antibiotic therapy (30 days), or immunocompromised state were excluded. Treatment failure was defined as receipt of a renewal or alternative antibiotic claim, or hospitalization 28 days post-prescription claim. Complications and infection related costs were tracked for 6-months post-diagnosis. Demographic, clinical, pre-index utilization, and study endpoints were evaluated via descriptive, univariate (Wilcoxon and Chi-Square tests for continuous and dichotomous variables, respectively) and multivariate techniques (logistic regression for treatment failure and complications, General Linear Model for costs).

RESULTS: Of 4030 LEVO and 951 AC patients analyzed, the cohorts had similar demographic and clinical profiles (pre-diagnosis utilization and cost, comorbidity burden, Charlson score), except age (LEVO vs AC: 45.8 ± 42.7 yrs < 0.001), gender distribution (females 49.5% vs. 53.4%, p < 0.001), and asthma prevalence (4.9% vs 6.8%, p = 0.017). The AC group had a higher percentage (22.0% vs. 18.5%, p = 0.015) and likelihood (OR = 1.27, 95% CI 1.07–1.52, p = 0.007) of treatment failure than the LEVO group. The rates of infection-related complications were 8.6% for LEVO and 8.2% for AC (OR 1.12, 95% CI 0.80–1.56, p = 0.52). No difference was observed in infection-related costs (mean ± SD: LEVO $1067 ± 3562 vs. AC $1159 ± 5874). CONCLUSION: LEVO and AC groups were comparable. The LEVO group experienced significantly lower treatment failure, but no significant differences in complications or costs, compared to the AC group.

TREATMENT FAILURE AMONG COMMUNITY ACQUIRED PNEUMONIA (CAP) PATIENTS TREATED WITH LEVOFLOXACIN OR MACROLIDES IN AN OUTPATIENT SETTING

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OBJECTIVES: To examine treatment failure rates among community acquired pneumonia (CAP) patients treated with levofloxacin vs. macrolides (azithromycin, clarithromycin or erythromycin) in an outpatient setting. METHODS: A post-hoc, retrospective database analysis using eligibility (6-months pre and post), medical and pharmacy claims from a large US commercial health plan. Adults (≥18) with an outpatient primary diagnosis of CAP between January 1, 2004 and March 31, 2005, and treated within 3 days of diagnosis with oral levofloxacin or macrolides were included. Patients with a recent hospitalization (10 days), prior antibiotic therapy (30 days), or immunocompromised state were excluded. Treatment failure was defined as receipt of renewal or alternative antibiotic claim, or hospitalization for CAP within 30 days of initial therapy. Multivariate logistic regression compared treatment failure rates between the two groups. Multivariate regression included all relevant variables describing patient characteristics including age, gender, region, Charlson comorbidity score, pre-existing respiratory, cardiovascular disease and diabetes. An identical subgroup analysis of patients ≥50 years old was conducted.

RESULTS: Of 7526 CAP patients included, 2968 (39.4%) were treated with levofloxacin and 4585 (60.6%) with a macrolide. Levaquin patients were older (mean 48.7 vs. 43.7) and had a more severe Charlson comorbidity status (mean 0.40 vs. 0.25). Unadjusted treatment failure rates were 21.1% and 22.7% in levofloxacin and macrolide cohorts, respectively. After adjustment, compared to macrolides, levofloxacin patients were less likely to fail treatment (OR = 0.84, 95% CI: 0.73, 0.94, P = 0.002). Of 2967 subjects ≥50 years old, 21.8% of levofloxacin and 25.4% of macrolide patients failed treatment, respectively; likelihood of treatment failure was significantly lower for levofloxacin patients (OR = 0.79, 95% CI: 0.66, 0.94, P = 0.007).

CONCLUSION: Compared with macrolides, Levofloxacin was associated with lower treatment failure rates in CAP patients treated in an outpatient setting. This difference was greater in patients ≥50 years old.

CLINICAL AND ECONOMIC OUTCOMES OF VANCOMYCIN FOR GRAM-POSITIVE INFECTIONS IN AN ERA OF INCREASING RESISTANCE: A SYSTEMATIC REVIEW

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OBJECTIVES: Vancomycin is often considered first-line for complicated gram+ infections; however, a rise in resistant infections in both hospital and community settings may impact efficacy and total cost of treatment. Our objective was to systematically evaluate the clinical efficacy and resource use/economic characteristics of vancomycin in recent randomized clinical trials (RCT) or economic studies for treatment of complicated gram+ infections, such as skin and soft tissue infections (SSTI), including methicillin-resistant staphylococcus aureus (MRSA). METHODS: A literature search was conducted in PubMed, EMBASE, IPA, and infectious disease abstract databases to identify clinical or economic studies of vancomycin published from 2000–2006. Clinical outcomes data were synthesized by study design, infection type, MRSA status, intent to treat (ITT) efficacy, microbiologic cure, MRSA efficacy, and adverse events (AEs). Efficacy data were pooled when possible. Economic data abstracted included hospital length of stay (LOS), length of treatment (LOT), and cost of treatment (COT) adjusted to 2006 US$. RESULTS: Twelve studies (including 5 RCTs with 4 in SSTI) were identified reporting specific clinical efficacy outcomes and/or economic data. The ITT average efficacy (range) for vancomycin 1 gm IV q12hr for SSTIs was 85% (76.9–88.5%) and microbiologic cure was 89% (77–97.6%). For MRSA SSTIs, efficacy was lower at 68% (50–81%). Incidence of drug-related AEs was 3.6–20.6%, and drug-related discontinuations 4.5–5.8%. Hospital LOS ranged from 8–15 days, and LOT 9–11 days.